

lating and synthesising perfumes and their components form a particularly useful feature of the work; the general treatment is here supplemented by particular references to the manufacture of important specific substances, such as phenyl-ethyl alcohol, cinnamic acid, salicylaldehyde, piperonal, and synthetic musk. The descriptions of quantitative determinations and of individual substances, although brief, are on the whole adequate for the purpose in view. This section of the book, however, cannot be exonerated from sins both of omission and commission: for example, the account of synthetic menthol is restricted to a mention of the reduction of menthone and pulegone with an excess of nascent hydrogen; and it is incorrectly stated (p. 82) that *d*-menthone, like *l*-menthone, yields a mixture of *l*-menthol and *d*-isomenthol when treated in this way. It need scarcely be pointed out, moreover, that *l*-menthone is not converted to *d*-menthone when treated with sulphuric acid, "nach der Inversionsmethode von Beckmann" (p. 164).

The references to natural sources could be augmented with advantage, and some of the existing references need correction: thus, it is surprising to find in this revised work a repetition of the statement, long since proved to be without foundation, that *l*-menthone occurs in the essential oils of *Eucalyptus hæmastoma*, *E. dives*, and *E. radiata*. A useful feature of the book is a list of thirty-two continental perfumery firms, together with a summary of the products in which they specialise.

J. R.

- (1) *The Industrial Arts: their History, Development, and Practice as Educational Factors*. By Frederick J. Glass. Pp. xxiii + 311. (London: University of London Press, Ltd., 1927.) 12s. net.
- (2) *Stencil Craft*. By Frederick J. Glass. (The Artistic Practical Handicraft Series.) Pp. vii + 64. (London: University of London Press, Ltd., 1927.) 1s. 6d.

It is easy to recognise in any book by Mr. Glass the work of one whose knowledge is only equalled by his power of expressing his thoughts, not merely with the force of the artist, but also with the literary finish of a master. It is true that he makes a lapse respecting a so-called 'quotation' from Kipling, and in "The Industrial Arts" he wrongfully describes as "plate tracery" the lancet windows of Fig. 16. In this book, as in others, he develops the lines upon which teachers should advance in the instruction of their pupils in craftsmanship. It is barely exaggerative to remark that he surveys the crafts "from China to Peru"; what does he *not* touch upon, indeed? Incidentally, it scarcely seems accurate to describe Boccaccio as of "the same age" as Savonarola and Macchiavelli; he died long before either of these two saw the light. A few notes upon stencilling merely supplement the special handbook (2) on this subject, which Mr. Glass has just produced in a series of manuals recently noticed in NATURE. His books perhaps err on the side of recommending too comprehensive

a study in the schools; his enthusiasm carries him away—but then it is such a generous enthusiasm.

P. L. M.

*Physics in Medical Radiology*. By Prof. Sidney Russ, Dr. L. H. Clark, and B. D. H. Watters. Pp. xii + 234. (London: Chapman and Hall, Ltd., 1928.) 12s. 6d. net.

THIS book has been written primarily for the use of candidates preparing for the examinations of various universities for a diploma in medical radiology and electrology. The information it provides is given in an exact and lucid manner, and the book is not only well adapted to meet the needs of the students it caters for, but should also appeal to other practising medical radiologists.

Some minor points call for comment. The data on p. 45 refer to the absorption of ultra-violet light by *dead* tissue. Some recent evidence has been obtained showing that the penetration through *living* tissue may be much greater. The half-life period of radium is given as 1680 years on p. 88, and 1760 years on p. 93, and certain of the constants quoted for other radioactive substances are not quite up-to-date.

We expected to find some reference in Chap. viii. to Duane's method of determining the 'effective' wave-length of a heterogeneous beam of X-rays, and also in a later chapter to the theory and use of an auto-transformer.

Two valuable appendices give the revised recommendations of the British X-ray and Radium Protection Committee, and a description of a hospital radium service. A misprint in the latter on p. 218 gives 'my' instead of 'our.'

The book can be recommended with confidence.

*Apollonius: or The Present and Future of Psychological Research*. By E. N. Bennett. (To-day and To-morrow Series.) Pp. 95. (London: Kegan Paul and Co., Ltd.; New York: E. P. Dutton and Co., n.d.) 2s. 6d. net.

THIS review of the achievements and hopes of psychical research appears to be written without bias and with an undiminished confidence in the future. It wisely concentrates on the psychological aspects of this kind of research, and does not claim any authenticity for the physical phenomena which have so largely figured in its records. "In view," we read, "of the more immediate results of real value which may be secured from a study of the subjective phenomena of psychical research it is obvious that, unless a physical medium is willing sooner or later to submit himself frankly and honestly to every reasonable test proposed by the best scientific minds, it is comparatively useless for a researcher to spend his limited time in inconclusive sittings for the alleged marvels of telekinesis or materialisation."

Whatever may be the eventual value of the investigations of thought transference and automatic writing, there is no doubt that psychical research has rendered a service in throwing light upon many dark corners of the past.